

APPLICANT(S): SREEKUMARAN NAIR,

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AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. **(Currently amended)** A method for the preparation of adsorbent compositions for removing pesticides like chlorpyrifos, malathion and other organo halogen/sulphur pesticides comprising metallic gold/silver nanoparticles having a size which is up to 150 nm deposited on activated alumina and/or magnesia, wherein said metallic gold/silver nanoparticles are prepared by:
 - (a) diluting silver nitrate or HAuCl₄ 3H₂O in water;
 - (b) heating;
 - (c) adding a sodium citrate solution;
 - (d) heating; [[and]]
 - (e) loading silver and gold nanoparticles on activated alumina and/or activated magnesia from a solution under wet conditions; and
 - f) washing the loaded activated alumina and/or activated magnesia under wet conditions.
2. **(Cancelled)**
3. **(Previously presented)** A method according to claim 1, wherein said activated alumina and/or magnesia are in the various forms such as globules and powder.
4. **(Previously presented)** A method according to claim 1, wherein the metallic silver and gold nanoparticles are baked with activated carbon.
5. **(Withdrawn)** A device for decontaminating water contaminated with pesticides like chlorpyrifos, malathion or other organo halogen/sulphur pesticides which comprises a housing loaded with gold/silver nanoparticles having a size upto 150 nm supported on activated alumina and/or magnesia, said housing provided with an inlet

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connectable to water supply source and an outlet for decontaminated water, said outlet being provided with regulatory means.

6. **(Withdrawn)** A method of decontaminating water by removing pesticides such as chlorpyrifos, malathion or other organo halogen/sulphur pesticides comprising the step of allowing contaminated water to flow through a bed of gold/silver nanoparticles having a size upto 150 nm supported on activated alumina and/or magnesia to adsorb said pesticides and collecting decontaminated water flowing out of said bed.
7. **(Previously presented)** The method of claim 1, wherein in step (d) the heating continues until the solution turns to pale yellow for silver and wine red for gold.
8. **(Previously presented)** The method of claim 1, wherein in step (b) the heating continues until boiling.
9. **(Previously presented)** The method of claim 4, wherein the metallic silver and gold nanoparticles are baked with activated carbon at 120⁰C.